

Translation

PATENT COOPERATION TREATY

PCT

INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

(Chapter II of the Patent Cooperation Treaty)

(PCT Article 36 and Rule 70)

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|------------------------------------------------------------------------------|-----------------------------------------------------------------|-----------------------------------------------------|
| Applicant's or agent's file reference P04-70 | FOR FURTHER ACTION See Form PCT/IPEA/416 | |
| International application No. PCT/JP2004/008833 | International filing date (day/month/year) 17.06.2004 | Priority date (day/month/year) 18.06.2003 |
| International Patent Classification (IPC) or national classification and IPC | | |
| Applicant GUNZE LIMITED | | |

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|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|
| <p>1. This report is the international preliminary examination report, established by this International Preliminary Examining Authority under Article 35 and transmitted to the applicant according to Article 36.</p> <p>2. This REPORT consists of a total of <u>6</u> sheets, including this cover sheet.</p> <p>3. This report is also accompanied by ANNEXES, comprising:</p> <p>a. <input checked="" type="checkbox"/> (sent to the applicant and to the International Bureau) a total of <u>2</u> sheets, as follows:</p> <p><input checked="" type="checkbox"/> sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications authorized by this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions).</p> <p><input type="checkbox"/> sheets which supersede earlier sheets, but which this Authority considers contain an amendment that goes beyond the disclosure in the international application as filed, as indicated in item 4 of Box No. I and the Supplemental Box.</p> <p>b. <input type="checkbox"/> (sent to the International Bureau only) a total of (indicate type and number of electronic carrier(s)) _____, containing a sequence listing and/or tables related thereto, in computer readable form only, as indicated in the Supplemental Box Relating to Sequence Listing (see Section 802 of the Administrative Instructions).</p> | |
| <p>4. This report contains indications relating to the following items:</p> <p><input checked="" type="checkbox"/> Box No. I Basis of the report</p> <p><input type="checkbox"/> Box No. II Priority</p> <p><input type="checkbox"/> Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability</p> <p><input type="checkbox"/> Box No. IV Lack of unity of invention</p> <p><input checked="" type="checkbox"/> Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement</p> <p><input type="checkbox"/> Box No. VI Certain documents cited</p> <p><input type="checkbox"/> Box No. VII Certain defects in the international application</p> <p><input type="checkbox"/> Box No. VIII Certain observations on the international application</p> | |

| | |
|-----------------------------------------|-----------------------------------|
| Date of submission of the demand | Date of completion of this report |
| Name and mailing address of the IPEA/JP | Authorized officer |
| Facsimile No. | Telephone No. |

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INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

International application No.

PCT/JP2004/008833

Box No. I Basis of the report

1. With regard to the language, this report is based on the international application in the language in which it was filed, unless otherwise indicated under this item.

☐ This report is based on translations from the original language into the following language _____, which is the language of a translation furnished for the purposes of:

- ☐ international search (Rule 12.3 and 23.1(b))
☐ publication of the international application (Rule 12.4)
☐ international preliminary examination (Rule 55.2 and/or 55.3)

2. With regard to the elements of the international application, this report is based on (*replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report*):

☐ the international application as originally filed/furnished

☒ the description:

pages 1-18 as originally filed/furnished

pages* _____ received by this Authority on _____

pages* _____ received by this Authority on _____

☒ the claims:

nos. 4, 6, 7, 8, 11, 12 as originally filed/furnished

nos.* _____ as amended (together with any statement) under Article 19

nos.* _____ received by this Authority on _____

nos.* 1, 3, 5, 9, 10 received by this Authority on 18.04.2005

☐ the drawings:

sheets _____ as originally filed/furnished

sheets* _____ received by this Authority on _____

sheets* _____ received by this Authority on _____

☐ a sequence listing and/or any related table(s) – see Supplemental Box Relating to Sequence Listing.

3. ☒ The amendments have resulted in the cancellation of:

☐ the description, pages _____

☒ the claims, nos. 2

☐ the drawings, sheets/figs _____

☐ the sequence listing (*specify*): _____

☐ any table(s) related to sequence listing (*specify*): _____

4. ☐ This report has been established as if (some of) the amendments annexed to this report and listed below had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).

☐ the description, pages _____

☐ the claims, nos. _____

☐ the drawings, sheets/figs _____

☐ the sequence listing (*specify*): _____

☐ any table(s) related to sequence listing (*specify*): _____

* If item 4 applies, some or all of those sheets may be marked "superseded."

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| Box No. V | Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement | | |
|---------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------|---------|-----|
| 1. Statement | | | |
| Novelty (N) | Claims | 1, 3-12 | YES |
| | Claims | | NO |
| Inventive step (IS) | Claims | 1, 3-12 | YES |
| | Claims | | NO |
| Industrial applicability (IA) | Claims | 1, 3-12 | YES |
| | Claims | | NO |
| 2. Citations and explanations (Rule 70.7) | | | |
| Document 1: JP 4-185322 A (Gunze Ltd.), 02 July 1992, claims; page 4, lower left column, lines 17 to 20; and examples | | | |
| Document 2: JP 5-254063 A (Gunze Ltd.), 05 October 1993, claims, paragraphs [0025] and [0037], and examples | | | |
| Document 3: JP 6-345920 A (The Nippon Synthetic Chemical Industry Co., Ltd.), 20 December 1994, entire text | | | |
| Document 4: JP 6-345919 A (The Nippon Synthetic Chemical Industry Co., Ltd.), 20 December 1994, entire text | | | |
| Document 5: JP 11-199741 A (The Nippon Synthetic Chemical Industry Co., Ltd.), 27 July 1999, entire text | | | |
| Document 6: JP 2002-248721 A (Mitsubishi Engineering Plastics Corp.), 03 September 2002, claims and paragraphs [0019] to [0021] | | | |
| Document 7: JP 2000-1592 A (The Nippon Synthetic Chemical Industry Co., Ltd.), 07 January 2000, entire text | | | |
| Document 8: JP 2001-114966 A (Kuraray Co., Ltd.), 24 April 2001, entire text | | | |

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Box No. V

Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability;
citations and explanations supporting such statement

Document 9: JP 2002-172742 A (Unitika Ltd.), 18 June
2002, entire text

Document 10: WO 2000/056548 A (Gunze Ltd.), 28 September
2000, entire text

The inventions set forth in claims 1, 4, 5, 9 and 10 do not involve an inventive step in the light of documents 1 to 4 and document 5 cited in the international search report.

Documents 1 to 4 disclose multilayer films that can be used in the packaging for retort food products, said multilayer films having a layered structure that comprises a polyamide layer, a saponified ethylene-vinyl alcohol copolymer (EVOH) layer and a polyamide layer, in that order. Furthermore, documents 3 and 4 disclose configurations wherein the EVOH layer is configured from a resin composition that comprises an EVOH and a polyamide resin.

However, documents 1 to 4 do not disclose a configuration wherein the EVOH layer comprises a polyamide resin, an alcohol compound and an EVOH.

Meanwhile, document 5 discloses a resin composition that comprises an EVOH as the main component, which can be obtained by melt blending a polyamide resin with an alcohol compound and then adding an EVOH thereto; indicates that the abovementioned resin composition exhibits superior transparency characteristics and superior retort resistance characteristics, and thus is useful as a packaging material for packaging food products that are subjected to retort sterilization; discloses the feature of configuring a layered object that comprises a layer of the abovementioned resin

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Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability;
citations and explanations supporting such statement

composition; and presents polyamides, copolymer polyamides and the like as examples of the films upon which the abovementioned resin composition may be laminated.

Therefore, it would have been easy for a person skilled in the art to conceive of employing the EVOH resin composition that is disclosed in document 5 as the EVOH layer that is disclosed in documents 1 to 4. Furthermore, the effects that result therefrom, e.g. the heat resistance characteristics, the water resistance characteristics and the like, could have been predicted in the light of the disclosures of document 5.

The invention set forth in claim 3 does not involve an inventive step in the light of documents 1 to 5 and documents 7 and 8 cited in the international search report.

Resin compositions that are configured by adding a lamellar inorganic compound which swells upon contact with water (corresponding to the "absorbent inorganic substance") to an EVOH and layered films that comprise a layer of the abovementioned resin composition are well known, as disclosed in documents 7 and 8.

The invention set forth in claims 6 to 8 does not involve an inventive step in the light of documents 1 to 4 and document 6 cited in the international search report.

Document 6 discloses a layered film that comprises a polyamide resin layer, wherein the abovementioned polyamide resin layer includes a hindered phenol-based antioxidation agent; therefore, it would have been easy for a person skilled in the art to conceive of including the abovementioned antioxidation agent in the polyamide

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|-----------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------|

layer of the inventions that are disclosed in documents 1 to 4.

The invention set forth in claim 11 does not involve an inventive step in the light of documents 1 to 4 and document 9 cited in the international search report.

Document 9 discloses a multilayer film that is configured from an EVOH layer, an aliphatic polyamide layer, and a layer that comprises xylylene-based polyamide as the primary component (corresponding to the "aromatic polyamide layer"). Therefore, it would have been easy for a person skilled in the art to conceive of further providing an aromatic polyamide layer to the multilayer films that are disclosed in documents 1 to 4.

The invention set forth in claim 12 does not involve an inventive step in the light of documents 1 to 6.

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